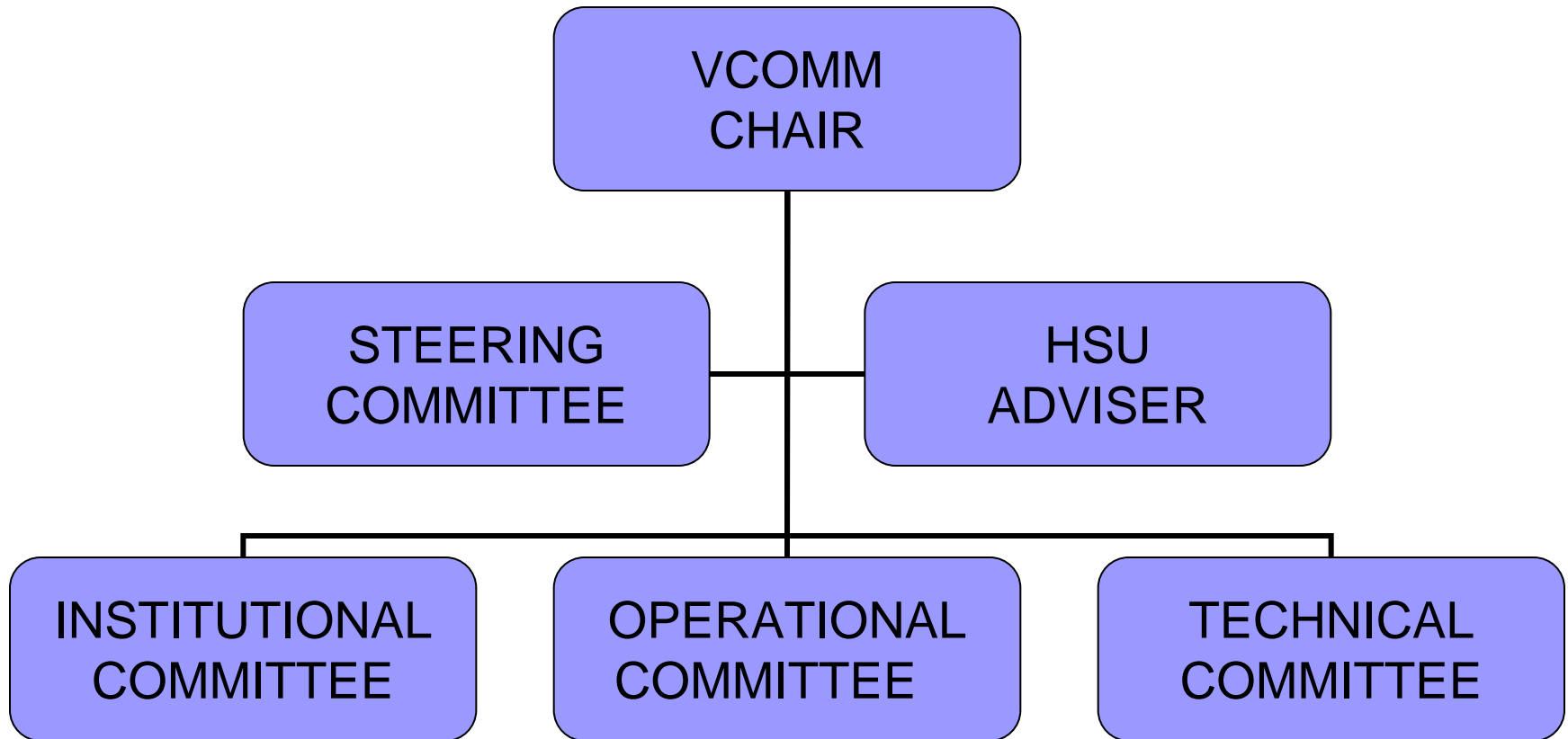


Interoperable Communication
Network –
A communications lifeline
program for those who protect
lives

A VCOMM Initiative

VCOMM ORGANIZATIONAL CHART





Design Concept

- Establish a statewide VCALL/UCALL interoperable network that leverages existing sites when available
- Add additional channels for internal government business and mobile data capabilities when funding becomes available



A Multi-Year, Multi-Phase Project

■ Phase 1

- ☐ Programming and/or reprogramming all First Responder radios with UCALL and VCALL frequencies
- ☐ Build-out of UCALL and VCALL transmitter sites
- ☐ Hiring Project Director and Frequency Coordinator
- ☐ Evaluating emergency needs of individual agencies and making recommendations to HSU for grant funds to meet these needs
- ☐ Dispatch Study



A Multi-Year, Multi-Phase Project Cont'd

■ Phase 2

- Look at FCC narrow-banding mandates as they apply to pagers and radios and develop a funding scheme to meet these mandates



Dispatch and Gateways

- Local, Municipal, Regional and State dispatch facilities would be connected to VCALL and UCALL channels in their operating regions
- Gateways would connect VCALL and UCALL channels to other outside organizations



System Build out site selection preferences:

- State communications sites with microwave facilities
- State communications sites without microwave facilities
- Municipal sites (Site selection will be based on size of RF footprint in areas that the state sites do not provide coverage)
- Commercial sites (Site selection will be based on size of RF footprint in areas that the state & municipal sites do not provide coverage)
- Develop new sites

Vermont Sites

State Owned Facilities

	Site Used In Design	Terrain Elevation At Site
1	Ascutney Mtn	943.25
2	Bellevue	370.25
3	Brattleboro Psv	368.50
4	Burke Mtn	992.00
5	Derby 2000	306.50
6	Equinox Mtn	1155.50
7	Evansville	429.00
8	Grampa Knob	590.50
9	Jay Peak	1147.00
10	Killington Peak	1281.25
11	Mansfield Mtn	1198.75
12	Millstone Hill	515.50
13	Montpelier State St	161.50
14	Moose Mtn	559.00
15	MtAnthony	707.50
16	Philo Mtn	278.25
17	Pierson Hill	596.75
18	PS Beecher Falls	457.75
19	Reedsboro	732.00
20	Russ Hill	447.50
21	Snow Mtn	1094.25
22	Streeter Hill	364.00
23	Waterbury	125.00
24	Williston	126.50

Municipal Facilities

	Site Used In Design	Terrain Elevation At Site
1	Middlebury	137.25
2	PS Waitsfield VFD	379.50
3	VE Hazen Rd	579.25
4	VE Plum Rd	513.25
5	VE Wenlock	359.00
6	X Broad Brook VFD	499.50

New Facilities

	Site Used In Design	Terrain Elevation At Site
1	Rockingham Psv	341.75
2	X Johnson	160.25
3	X Snow Bowl Lodge	879.00

Public Safety Interoperability Channels

Mobile Rx	Mobile Tx	Mobile Direct	PL	Nomenclature
155.7525	155.7525	N/A	TBD	VCALL
151.1375	151.1375	N/A	TBD	VTAC 1
154.4525	154.4525	N/A	TBD	VTAC 2
158.7375	158.7375	N/A	TBD	VTAC 3
159.4725	159.4725	N/A	TBD	VTAC 4
453.2125	458.2125	453.2125	TBD	UCALL
453.4625	458.4626	453.4625	TBD	UTAC 1
453.7125	458.7125	453.7125	TBD	UTAC 2
453.8625	458.8625	453.8625	TBD	UTAC 3



Frequency Coordinator

Scope of Services

- Recommendations on use of VCALL/VTAC and UCALL/UTAC frequencies and channels
- Recommendation on frequency/channel reassignments for users that currently are licensed on channels adjacent to VCALL/VTAC and UCALL/UTAC frequencies and channels that may cause interference with use of the VCALL/VTAC and UCALL/UTAC frequencies and channels
- Recommendations on pooled statewide frequencies
- Recommendations on pooled regional frequencies
- Recommendations on local dispatch, operational and tactical frequencies
- Recommendation on interoperability frequencies with adjacent states and provinces
- May provide limited assistance in general frequency coordination and licensing issues to program participants as approved by VCOMM



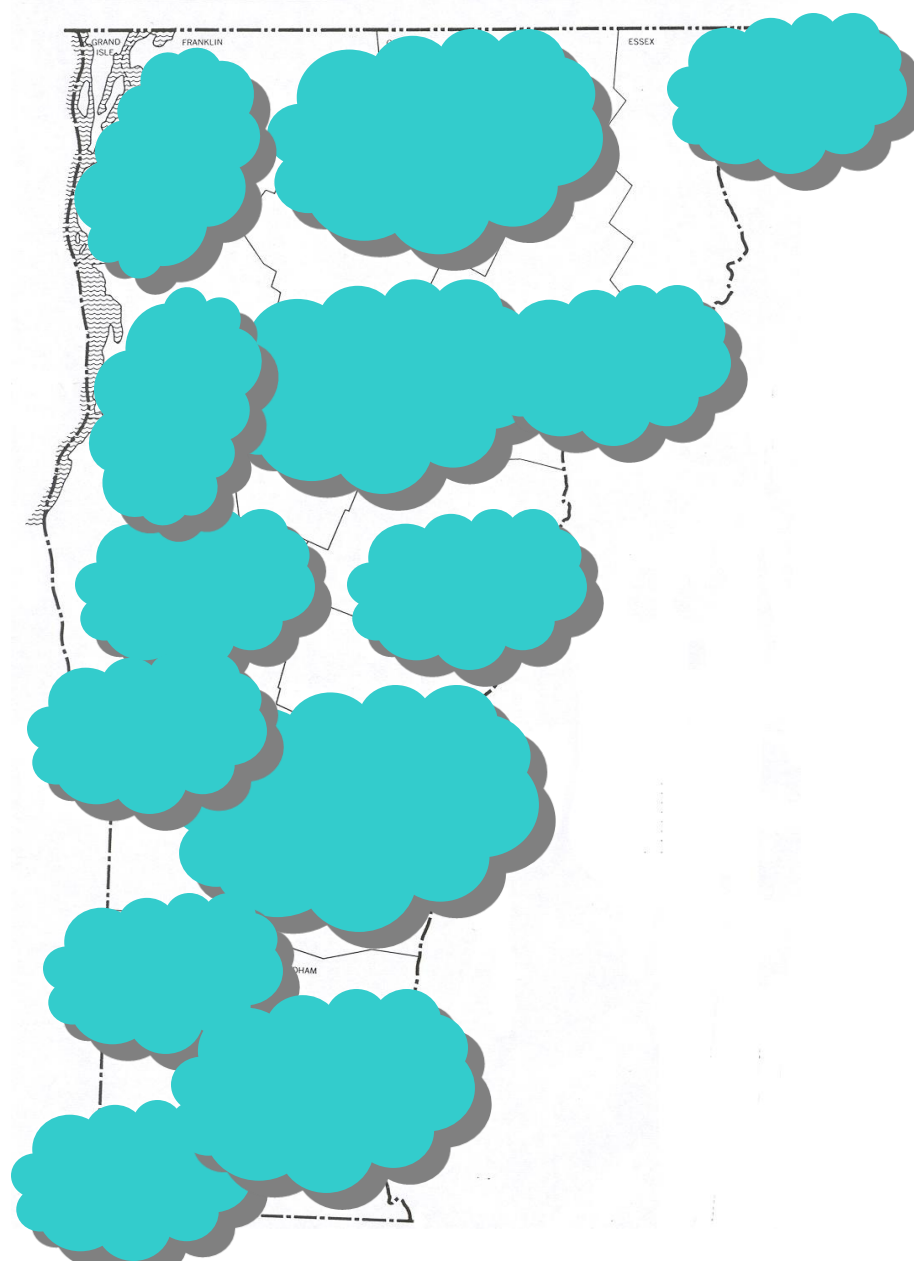
Frequency Coordinator

Scope of Services

In developing the plan as a minimum the following shall be considered:

- Maximizes available Frequency spectrum
- Establishes channel capacity to satisfy both mobile data and voice requirements
- Considers all operational call groups
- Considers frequency reuse based on State and surrounding jurisdictional boundaries
- Assesses functional requirements against the FCC narrow banding mandates
- Identifies impediments and opportunities to achieve the overall Statewide interoperable mobile data and voice communications
- Establishes a strategy for pooling existing public safety frequency assignments
- Provisions for voice alert paging - Statewide
- Complete FCC Forms 601 with appropriate engineering support and required showings
- Facilitate licensing process in coordination with the appropriate coordinator

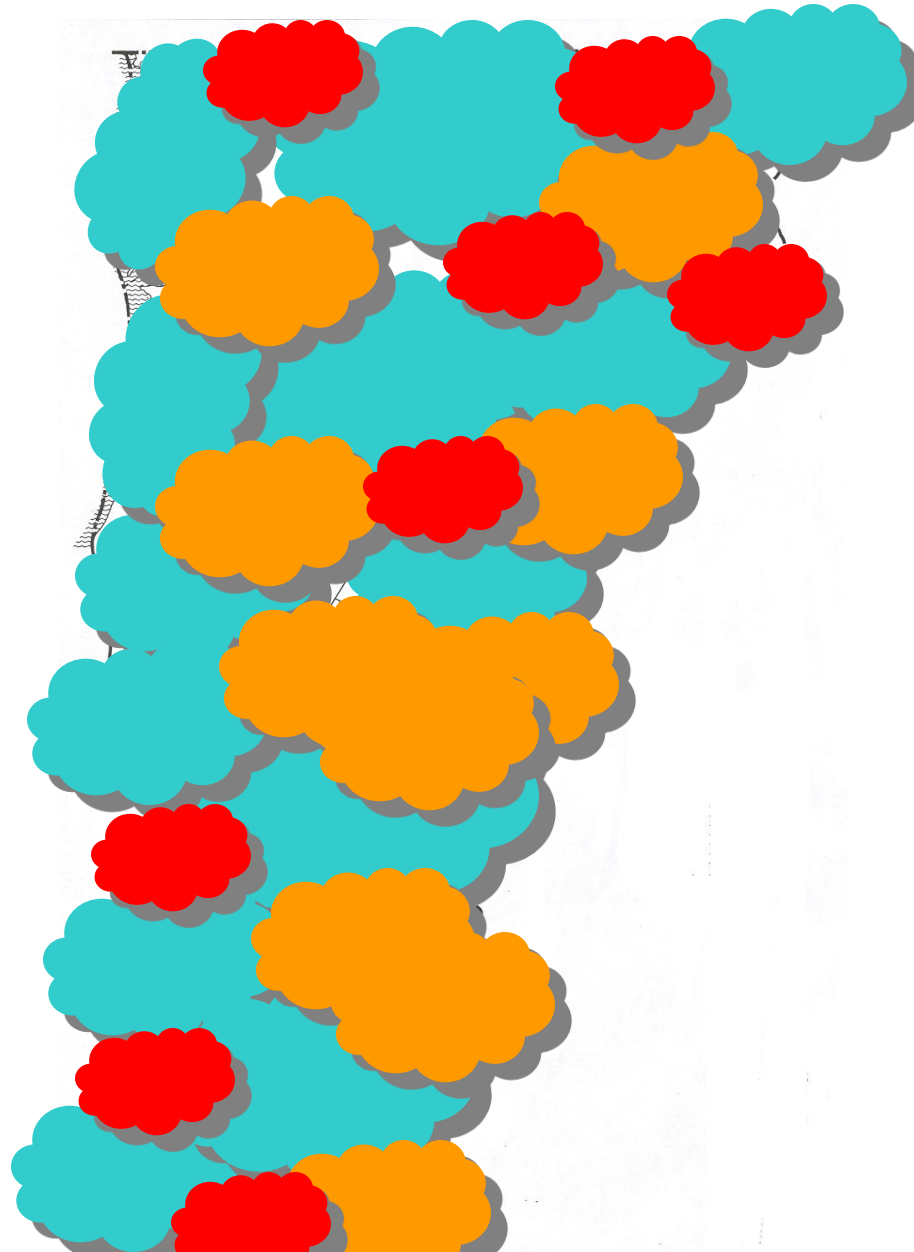
Coverage from State owned facilities (not actual coverage)



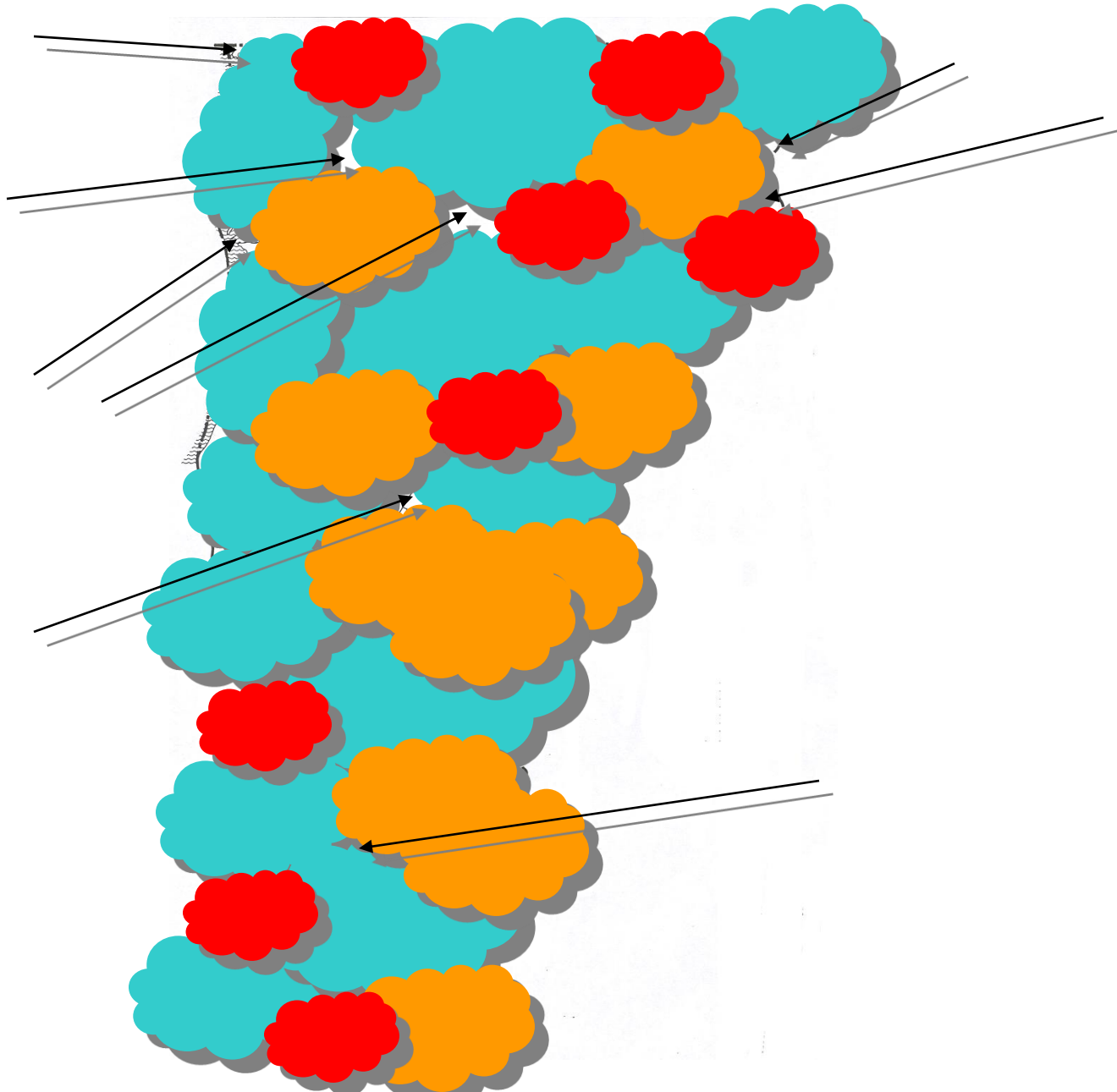
Coverage from State owned facilities & Municipal Facilities



Coverage from State owned facilities & Municipal Facilities & New Facilities



There will be dead spots !!!





Initial System Design Goals

- Provide good to excellent mobile coverage
- Maximize use of sites already developed
- Minimize new construction and permitting challenges
- Allow First Responder community to maintain their own radio systems while having access to an interoperable radio network
- Keep the financial investment **practical**



Federal Mandates Being Met

- Homeland Security efforts to get interoperability solutions deployed
- System will be designed under new narrowband guidelines to comply with Federal Communications Commission (FCC) mandates



Long Term Goals

- Expand the number of radio channels available to migrate internal government traffic to a FCC compliant platform.
- Expand network to assist selected communities with core coverage needs
- Expand services to include data for the First Responder community when funding is available.
- Assist First Responder entities in enhancing their internal communications needs



FY06 Homeland Security Grant Program

- Once VT HSU receives the official award notification (late June or early July) they will have 60 days to obligate the local funds
- The State of Vermont Fiscal Year 2006 proposed solutions were rated among the top 25% of all states and territories by the peer review panels
 - One Investment Justification was among the top 15% (exceptional) of all Investments submitted
- The State of Vermont was among the bottom 25% of all states based on the DHS comparative Risk Analysis, a study based on geographically-based and asset-based (critical infrastructure) risks
 - Vermont's ranking in the bottom 25% of the Risk Analysis is a product of our low population (when compared to other states) and the limited number of critical infrastructure assets located in the State
- Statewide interoperable communications will be the primary focus, as acknowledged by DHS
 - the majority of funding will be placed into the development and enhancement of a core radio system that will provide communication and interoperability for all first responders that will be providing public safety to the residents of the State of Vermont



FY06 Homeland Security Grant Award

- State Homeland Security Program (SHSP)
\$7,220,000
- Law Enforcement Terrorism Prevention Program
(LETPP) \$3,520,000
- Citizen Corps Program (CCP) \$167,921
- **TOTAL \$10,907,921**



FY 2006 Proposed Budget

- Projects to be Funded:
 - CBRNE (\$2.3 Million)
 - VEPARDS and local planning projects (\$300K)
 - Funding for Training (\$650K)
 - VFA (\$250K plus \$50K for USAR Training)
 - VPA (\$250K)
 - State Training (\$50K SHSP and \$50K LETPP)
 - Statewide Exercise Program (\$425K)
 - MCI Trailers (\$200K)
 - Decon Trailers (Enhancement) (\$300K)
 - Swift Water Rescue Capability (\$100K)
 - USAR Capability (\$150K)
 - Contingency Funding for Emergencies (\$200K)



FY 2006 Proposed Budget Cont'd

- Vermont Communication Project (\$7.5M)
- Medical Surge (\$250K)
- Citizen Corp Program (\$167K)
- State Management and Administration (\$322K)
 - (3% vs. 5%)
- State Planning Projects (\$360K)
 - (2) Homeland Security Planner Positions
 - (1) Criminal Intelligence Analyst
 - State Planning Projects (NIPP, SNS support)

VCOMM FY06 Proposed Budget


Frequency Coordinator	\$ 115,000.00
Project Manager	\$ 300,000.00
Administrative Support	\$ 150,000.00
Programming of UTAC/VTAC Frequencies	\$ 300,000.00
Dispatching Survey/Study	\$ 200,000.00
Equipment & related services - Existing Sites	\$ 3,000,000.00
Equipment & related services - PSAP Sites	\$ 275,000.00
Equipment & related services - New Sites	\$ 2,094,000.00
Emergency Equipment Needs	\$ 500,000.00
Frequency Coordination Licensing Fees	\$ 150,000.00
Office Space	\$ 48,000.00
Exercises for deployment of UTAC/VTAC	\$ 100,000.00
Supplies	\$ 100,000.00
Travel for VCOMM Board	\$ 168,000.00
Total:	\$ 7,500,000.00

**** This is a PROPOSED budget and has not yet been approved ****



VCOMM WEB SITE

- <http://www.dps.state.vt.us/need/>



“Imaginary obstacles are insurmountable.
Real ones aren’t.”

~ Barbara Sher